

In the Claims:

1. (Original) A polynucleotide selected from the group consisting of (a) to (f) below:

(a) a polynucleotide comprising a protein-coding region of the nucleotide sequence according to SEQ ID NO: 1;

(b) a polynucleotide encoding a protein comprising the amino acid sequence according to SEQ ID NO: 2;

(c) a polynucleotide encoding a protein that is functionally equivalent to a protein comprising the amino acid sequence according to SEQ ID NO: 2 in which one or more amino acids are replaced, deleted, inserted, and/or added;

(d) a polynucleotide encoding a protein that is functionally equivalent to a protein comprising the amino acid sequence according to SEQ ID NO: 2, said polynucleotide hybridizing under stringent conditions with a polynucleotide comprising the nucleotide sequence according to SEQ ID NO: 1;

(e) a polynucleotide encoding a partial peptide of a protein comprising the amino acid sequence according to SEQ ID NO: 2; and

(f) a polynucleotide encoding a partial peptide of a protein that is functionally equivalent to a protein comprising the amino acid sequence according to SEQ ID NO: 2 in which one or more amino acids are replaced, deleted, inserted, and/or added.

2. (Original) A protein encoded by the polynucleotide according to claim 1, or a partial peptide thereof.

3. (Original) The partial peptide according to claim 2, said partial peptide comprising an amino acid sequence selected from the N-terminal amino acid residues 27 to 213 of SEQ ID NO: 2.

4. (Original) A vector into which the polynucleotide according to claim 1 is inserted.

5. (Previously presented) A transformant comprising the polynucleotide according to claim 1.

6. (Previously presented) A method for producing a protein or partial peptide comprising cultivating the transformant according to claim 5, and collecting expression products.

7. (Original) A polynucleotide comprising at least 15 nucleotides, said polynucleotide hybridizing with the polynucleotide according to claim 1 or with a complementary strand thereof.

8. (Previously presented) A primer for synthesizing the polynucleotide according to claim 1, said primer comprising at least 15 nucleotides, said primer hybridizing with said polynucleotide or with a complementary strand thereof.

9. (Previously presented) A probe for detecting the polynucleotide according to claim 1, said probe comprising at least 15 nucleotides, said probe hybridizing with said polynucleotide or with a complementary strand thereof.

10 (Original) An antisense DNA against the whole or a part of the polynucleotide according to claim 1.

11. (Previously presented) A method for isolating a gene encoding a receptor for the protein of claim 2, said method comprising the steps of:

- (a) contacting said protein with a cell expressing a gene library; and
- (b) selecting a clone that can bind to said protein.

12. (Previously presented) A gene isolated by the method according to claim 11.

13. (Previously presented) A receptor encoded by the gene according to claim 12.

14. (Previously presented) A method for screening a compound that interferes with binding between the protein according to claim 2 and a receptor for the protein, said method comprising:

(a) contacting, with said protein, a cell that expresses a receptor for said protein, either in the presence of a candidate compound, or after said cell is contacted with a candidate compound; and

(b) selecting a compound that interferes with a binding level of said protein.

15. (Previously presented) A compound isolated by the method according to claim 14.

16. (Original) A non-human vertebrate that has been manipulated so that expression of the protein according to claim 2 is altered.

17. (Original) The non-human vertebrate according to claim 16, wherein said non-human vertebrate is a knockout animal or a transgenic animal.

18. (Original) The non-human vertebrate according to claim 17, wherein said non-human vertebrate is a mouse.

19. (Previously presented) A transformant comprising the vector according to claim 4.

20. (Previously presented) A method for producing a protein or partial peptide comprising cultivating the transformant according to claim 19, and collecting expression products.

21. (New) The isolated polynucleotide of claim 1, wherein said polynucleotide is a polynucleotide encoding a protein comprising the amino acid sequence according to SEQ ID NO: 2.

22. (New) An isolated protein comprising the amino acid sequence according to SEQ ID NO: 2.

23. (New) An antibody that binds to the protein of claim 22.